

REMARKS

Claims 1–8 are pending.

Claim Amendments

Claim 1 has been amended to recite a “cementitious binder and an aggregate.” Support for this amendment is found, for example, in ¶ [0012] on page 4 (“One preferred formulation of a building material made in accordance with preferred embodiments of the present invention comprises a cementitious binder, preferably Portland cement; an aggregate, preferably silica which may be fine ground if it is to be autoclaved …”).

The word “reinforced” was replaced with “reinforcing” in the second line of claim 1 as a clarification. Applicants respectfully submit that this amendment does not change the scope of the claim.

Rejections Under 35 U.S.C. § 102/103

Claim 1–8 stand rejected under 35 U.S.C. §§ 102(a) and 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Naji et al. (U.S. Patent No. 6,030,447), Ries (U.S. Patent No. 5,049,196), Chumbley et al. (U.S. Patent No. 4,013,480) or Lundin (U.S. Patent No. 3,931,069). “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). A *prima facie* rejection for obviousness requires: (1) a disclosure of every element recited in the claim in the cited reference or references; (2) a suggestion or motivation, in the references or known to one skilled in the art, to modify or combine the references; and (3) a reasonable expectation of success. The suggestion to combine and the reasonable expectation of success must be found in the prior art. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Amended Claim 1 recites in relevant part:

the dispersant binds hydroxyl groups on the fiber surface so as to substantially inhibit bonding between hydroxyl groups of different fibers, thereby substantially reducing inter-fiber hydrogen bonding so that the chemically treated fibers can be more readily dispersed in the building material

Naji et al.: While Naji et al. discloses the use of a generic “dispersant” (Naji et al. at 2:26), Naji et al. does not identify any particular dispersant or any property of the dispersant or

any function of the dispersant. Moreover, Naji et al. never discloses which component, if any, is dispersed. Naji et al. discloses a large number of potential dispersible components, including, for example, a dehydroxylated clay (*id.* at 1:30), a siliceous material (*id.* at 1:28), numerous non-cellulose fibers (*id.* at 2:9–13), and other additives (*id.* at 2:20–28), but does not identify the object, function, or mechanism of dispersion. Simply put, Naji et al. does not teach or disclose which component, if any, is dispersed. Furthermore, Naji et al. does not disclose how any component is dispersed. The dispersion mechanism will depend on what is being dispersed, and therefore, a generic reference to a dispersant in combination with any of a number of dispersible components does not teach the invention of claim 1.

In particular, Naji et al. does not disclose that the disclosed “dispersant” “binds hydroxyl groups on the [cellulose] fiber surface.” In short, the Examiner has provided no evidence that the “dispersant” disclosed in Naji et al. is the dispersant recited in claim 1. Accordingly, Naji et al. does not disclose, either explicitly or inherently, every element recited in claim 1, and thus claim 1 is patentable over Naji. Because claims 2–8 are dependent on claim 1 and recite additional features, claims 2–8 are also not anticipated by Naji et al.

To support a teaching of a dispersant in combination with a cellulose fiber, the Examiner points to claims 13 and 16 of Naji et al. as disclosing a composition comprising both cellulose fibers and a dispersant. However, claims 13 and 16 are each dependent on claim 1, but one is not dependent on the other. Accordingly, claims 13 and 16 do not support the Examiner’s contention that these claims teach a formulation *simultaneously* comprising both cellulose fibers and a dispersant.

Claim 1 is also not obvious over Naji et al. Because Naji et al. does not disclose or suggest every element recited in claim 1, claim 1 is not obvious over Naji et al. for at least the reasons discussed above. Because claims 2–8 are dependent on claim 1 and recite additional features, claims 2–8 are also not obvious over Naji et al.

Ries: Amended claim 1 recites an aggregate. Ries does not disclose or suggest an aggregate. Accordingly claim 1 is not anticipated by Ries. Because Ries does not disclose or suggest every element recited in claim 1, claim 1 is also not obvious over Ries. Because claims 2–8 are dependent on claim 1 and recite additional features, claims 2–8 are also not anticipated by or obvious over Ries.

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Amendment filed April 20, 2005

Responsive to an Office Action mailed December 23, 2004

Chumbley et al.: Amended claim 1 recites “a cementitious binder and an aggregate.” Chumbley et al. appears to be directed to paper, paperboard, textiles, and the like. Chumbley et al. at 1:22–31. Chumbley does not disclose or suggest a cementitious binder and an aggregate. Accordingly, claim 1 is not anticipated by Chumbley et al. Because claims 2–8 are dependent on claim 1, Chumbley et al. also does not anticipate claims 2–8.

Because Chumbley et al. does not disclose or suggest every element recited in claim 1, it also does not make claim 1 obvious. Consequently, claims 2–8 are also not obvious over Chumbley et al.

Lundin: Similarly, Lundin appears to be directed to papermaking and does not disclose a cementitious binder and an aggregate. *See, for example*, Lundin at 2:15–21. Accordingly, claim 1 is not anticipated by Lundin. Because claims 2–8 are dependent on claim 1, Lundin also does not anticipate claims 2–8.

Claim 1 is not obvious over Lundin because Lundin does not disclose or suggest every element recited in claim 1. Similarly, claims 2–8 are also not obvious over Lundin.

Obviousness-Type Double-Patenting

Claims 1–8 stand rejected for the judicially created doctrine of obviousness-type double-patenting over claims 1–78 of U.S. Patent No. 6,346,146 B1 (Duselis I), claims 1–72 of U.S. Patent No. 6,506,248 B1 (Duselis II), or claims 1–52 of U.S. Patent No. 6,676,745 B2 (Merkley et al.).

Pending claims 1–8 are not obvious over any of the cited claims for the same reason that they are not obvious over Naji et al.: the Examiner has provided no evidence that any “dispersant” disclosed in the cited references is the dispersant recited in the pending claims. Accordingly, Applicants respectfully submit that the rejection is overcome.

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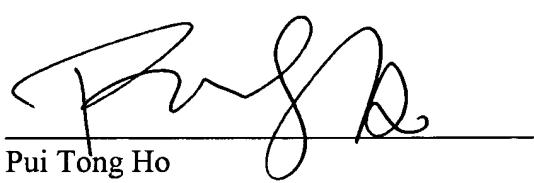
Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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